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## 700R4 / 2004R Adjustable Throttle Valve Cable Instructions

### **WARNING! IMPORTANT NOTICE!** **POST INSTALLATION ADJUSTMENT.**

**Please note:** The following instructions were made to act as a guide/reference, if you are inexperienced with performing these types of critical adjustments it is highly recommended that you contact a certified professional to make the adjustments for you!

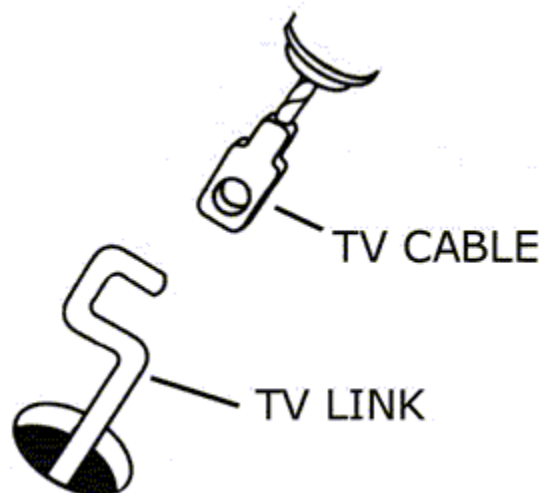
It is imperative that after your new Monster 700R4/2004R transmission has been installed that the Throttle Valve (TV) Cable gets adjusted properly, **DAMAGE WILL OCCUR** to the transmission, voiding the warranty. If you are unsure about the proper adjustment needed, call the Monster Transmission & Performance tech line for help or refer to a General Motors service manual for additional information and reference.

► **Function of the TV Cable:** Many people believe that this is a detent downshift cable and that this is the only function that the cable performs. In actuality, the TV Cable controls line pressures, shift points, part throttle downshifts and detent downshifts. The cable functions similarly to the combination vacuum modulator/cable systems found on other automatic transmissions.

► **TV Cable Connection:** If you are retrofitting your Monster Transmission & Performance 700R4/2004R transmission in place of a different model transmission (i.e. TH-350 or TH-400) it is imperative that you follow the TV Cable bracket fabrication instructions. If your Monster Transmission & Performance 700R4/2004R is replacing an original 700R4/2004R then skip to Step 2.

**Step 1** Obtain a cable that is designed for use with the 700R4/2004R transmission. The TH-350 and older TH-200 cables are designed differently and will not work. A salvage yard cable may work but be forewarned: There are about 30 different length cables found on stock vehicles and a cable that is too short in your application will not work. Also, used cables could have a number of problems as well, including stretched cables, damaged sheathing or housings or mutilated cable ends. Monster Transmission & Performance recommends our universal TV Cable (Model# K65940U) that is designed to work correctly in any 700R4/2004R application.

**Step 2** With the carburetor/throttle body end of the TV Cable disconnected, pull the link out of the transmission and fit the cable end to the link as shown in **Figure 1**. Push the TV Cable sheath into the seal in the transmission and tighten the 10mm retaining bolt. If your vehicle has a factory installed bracket for the TV Cable then skip to Step 4.



**Step 3** Install a bracket that will allow the TV Cable to mount to the carburetor/throttle body. Monster Transmission & Performance carries two brackets:



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Model# AS2-02K works with most Holly carburetors, or Model# AS3-03K for Edelbrock Performer carburetors.

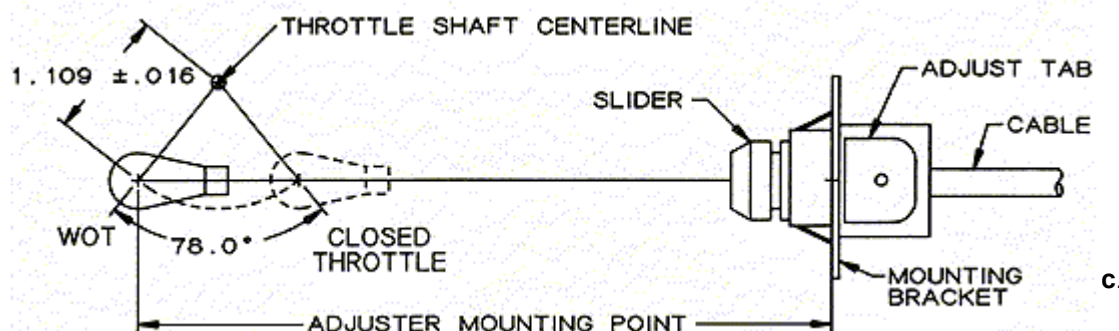
If you are using a Chevrolet TBI/TPI induction system, then correct brackets can be obtained from a salvage yard or a local car dealership.

**Figure 2** demonstrates the correct geometry for the TV Cable mounting position. Use the following procedure to determine if your ADJUSTER MOUNTING POINT is correct.

a. Push in the Adjust Tab and retract the Slider in the direction shown in **Figure 3**.

a1. Release Adjust Tab.

b. Without allowing the Slider to move, pull the cable until you feel tension and measure from the mounting bracket to the carburetor mounting tab. Add  $\frac{3}{16}$ " to this measurement and with tension on the cable, loosen the brass lock-sleeve and slide it down the line to the  $\frac{3}{16}$ " measurement.



Also note in **Figure 2** that the distance from the throttle shaft to the cable end is referenced. This distance must be between  $1 \frac{7}{64}$ " and  $1 \frac{1}{8}$ ". The cable end mounting point should follow a  $78^\circ$  arc between closed throttle and WOT in order to achieve the proper amount of pull on the cable.

**Step 4** Adjustment of the TV Cable on a **gasoline engine**. For a diesel application go to Step 5.

a. Adjustments are made with the engine off. Locate the Adjust Tab on the cable housing. Press in the tab and push the slider as shown in **Figure 3**. Press

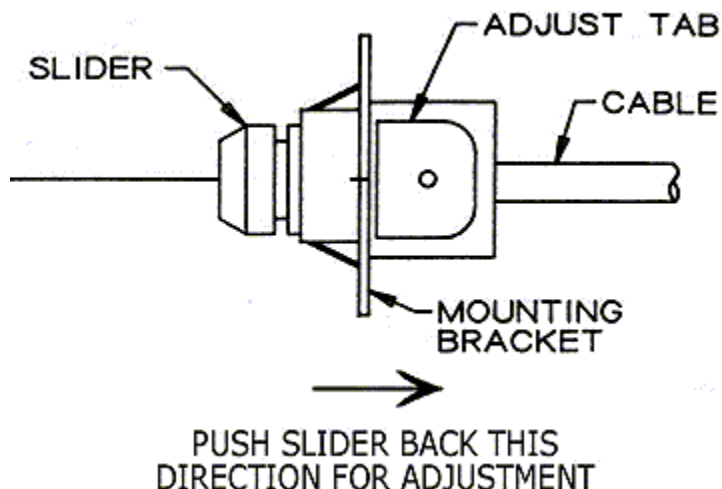
b. Release the tab and rotate the throttle lever to WOT and the cable will self adjust itself as evidenced by a few audible clicks.

Release the throttle lever and check the cable for any signs of binding or sticking. After you have released the lever, make sure there is no slack in the cable.

c. Road test the vehicle. Under moderate acceleration your shift points should be close to the following:

1-2.....	20 MPH
2-3.....	28-32 MPH
3-4.....	42-45 MPH

If the cable is adjusted too loosely your transmission will exhibit soft, stacked shifts (not spread out). **WARNING!...**





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**DO NOT CONTINUE DRIVING VEHICLE IF THIS HAPPENS!**

Immediately readjust cable. Tighten the cable to firm up the shifts and spread out the shift points. Loosen the cable if the transmission is shifting too late. Repeat Step 4, section C.

If you continue to have problems, please contact the Monster Transmission & Performance tech department for assistance at 1-800-708-0087.

**DIESEL APPLICATIONS**

**Step 5** Adjustments of the TV Cable on a **diesel engine**.

- a. Adjustments are made with the engine off. If equipped with cruise control, remove the control rod.
- b. Disconnect the TV Cable end from the throttle lever.
- c. Loosen the locknut on the pump rod and shorten several turns.
- d. Turn throttle lever to WOT and tighten the pump rod locknut.
- e. Lengthen pump rod until injection pump lever contacts the full throttle stop.
- f. Release the throttle lever and tighten the pump rod locknut.
- g. Remove pump rod from the throttle lever.
- h. Reconnect the TV Cable end to the throttle lever.
- i. Press in the Adjust Tab and move Slider as shown in **Figure 3**.
- j. Release the tab and rotate the throttle lever to WOT and the cable will self adjust itself as evidenced by a few audible clicks. Release the throttle lever and check the cable for any signs of binding or sticking.
- k. Reconnect the pump rod and cruise control throttle rod, if equipped.
- l. If equipped with cruise control, adjust servo throttle rod to minimum slack.
- m. Road test the vehicle. Under moderate acceleration your shift points should be close to the following:

1-2.....	20 MPH
2-3.....	28-32 MPH
3-4.....	42-45 MPH
- n. If the cable is adjusted too loosely your transmission will exhibit soft, stacked shifts (not spread out). **DO NOT CONTINUE DRIVING VEHICLE IF THIS HAPPENS!** Immediately readjust cable. If you continue to have problems, please contact the Monster Transmission & Performance tech department for assistance. (800) 708-0087 opt. 2